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**KNOWLEDGE, ATTITUDE AND PRACTICE OF DOMESTIC WASTE  
DISPOSAL IN PIMPRI CHINCHWAD MUNICIPAL CORPORATION,  
PUNE – A CROSS SECTIONAL STUDY**

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**ABSTRACT**

**Background:** Solid waste management is a part of environmental health. Improper disposal of Domestic waste pollute the environment and increase incidence of vector borne diseases. **Aim:** This study investigate the knowledge, attitude and practice regarding domestic waste disposal in urban area of Pimpri-Chinchwad Municipal Corporation, Pune, India **Result:** We observed that 76% people have knowledge regarding solid waste disposal. 60 % people adopted proper waste disposal method. Still 87 % people had noticed waste on road, Water sources etc. It is observed that 90 % people have attitude to adopt new method of waste disposal. **Conclusion:** We conclude with help of survey that most of the community is aware about the solid waste management but we have to change their attitude to follow proper practice of waste disposal.

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Proper solid waste management programme with financial support by Government is needed for prevention of communicable diseases and promotion of health.

**Keywords:** Domestic waste, solid waste disposal, knowledge of waste, practice of waste disposal

## INTRODUCTION

Swachh Bharat Mission (SBM) or Swachh Bharat Abhiyan in 2014 aim at elimination of open defecation and improvement in solid waste management initiated by Government of India in 2014. Cities were encouraged for preparation of project reports with financial support to improve solid waste management [1].

Community involvement is needed for proper disposal of domestic waste, which can be achieved by health education to community, their attitude towards disposal of waste and practice of this waste disposal method [2]. Public health and environment are affected by improper solid waste management. Significant developments are done in social, economic and environmental areas but there is no change in solid waste management system [3].

Urban population in India increased from 18 to 31.20 % from 1961 to 2011 respectively (census of India, 2011b) [4] which affect environmental health.

Due to massive industrialization in Pimpri-Chinchwad Municipal Corporation, population becomes denser. Population of Pimpri-Chinchwad Municipal Corporation

was 17.3 lakhs in 2011 census [4]. This increases burden on solid waste management. So this city was selected for the study to see knowledge, attitude and practice of peoples towards domestic waste disposal to help corporation for proper management.

**AIM AND OBJECTIVES:** To study knowledge, attitude and practice of peoples towards domestic waste disposal in Pimpri-Chinchwad Municipal Corporation.

## MATERIAL AND METHODS:

### Material:

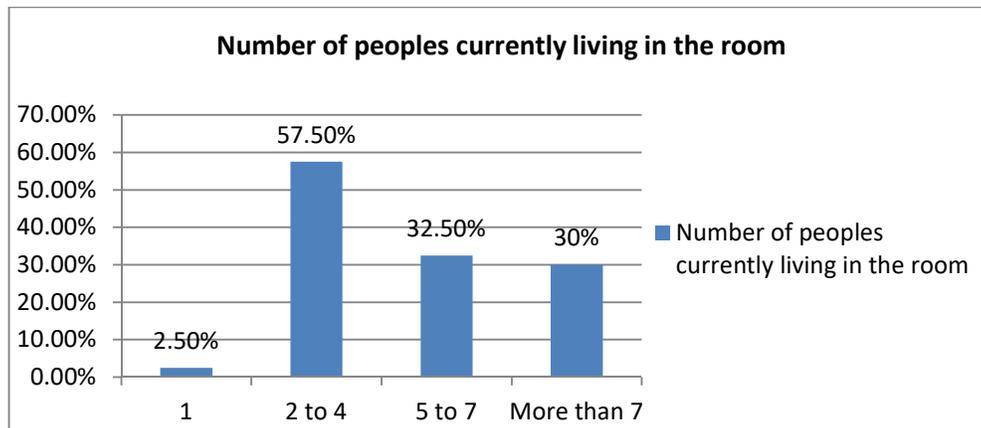
Peoples living in Pimpri-Chinchwad Municipal Corporation were involved in this survey study. A questionnaire of domestic waste disposal was taken including questions regarding knowledge, attitude and practices of domestic waste disposal.

### Methods:

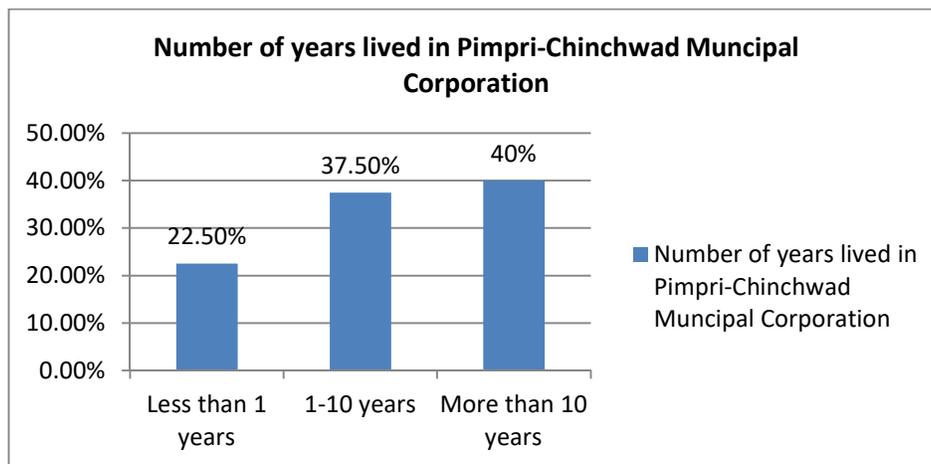
The data was collected by cross sectional method. It was then analyzed and interpreted. Percentage method was used to analyze the data.

## OBSERVATION AND RESULT:

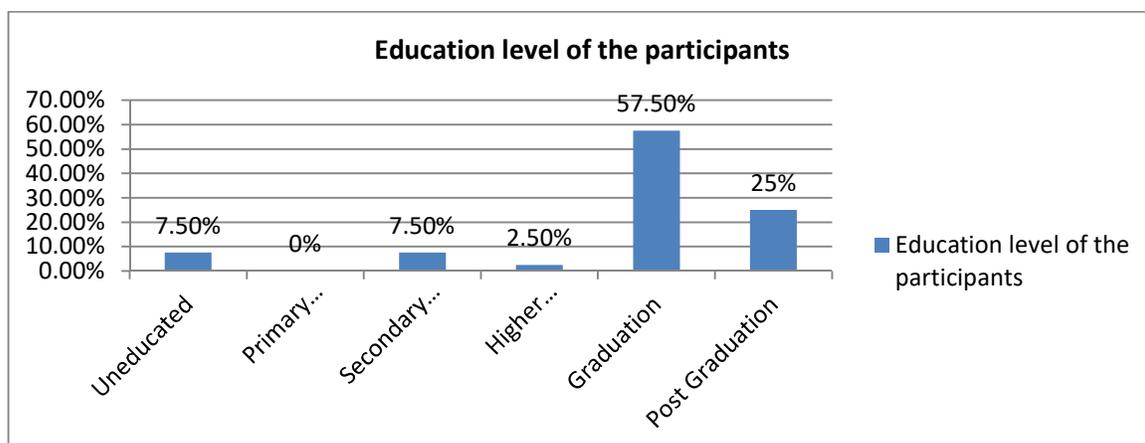
Knowledge, attitude and practice of people residing in Pimpri-Chinchwad Municipal Corporation towards domestic waste disposal were analyzed from questionnaire.



**Graph 1: Number of peoples currently living in the room**  
Maximum participants 57.50% have 2-4 members in their family



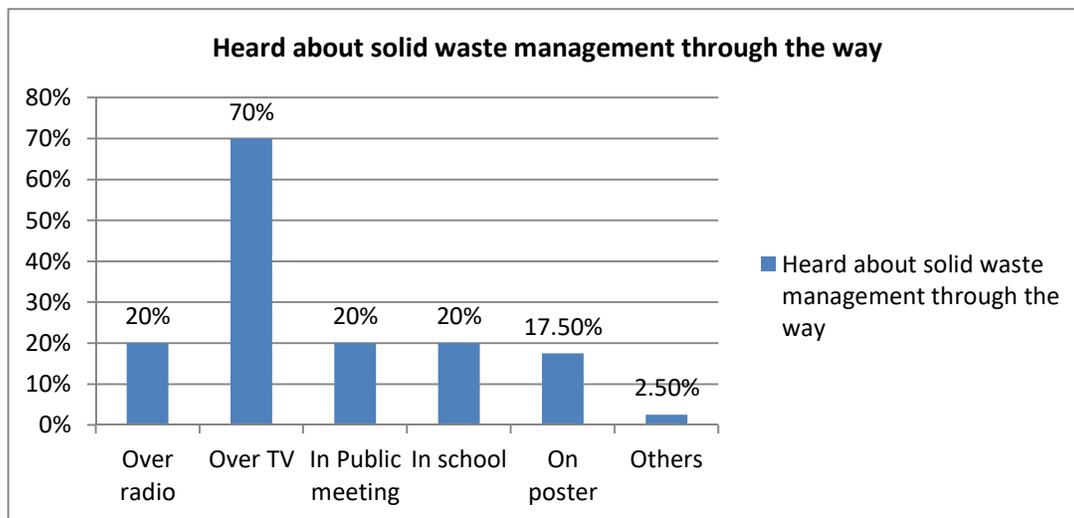
**Graph 2: Number of years lived in Pimpri-Chinchwad Municipal Corporation**  
40 % participants lived in this area from more than 10 years.



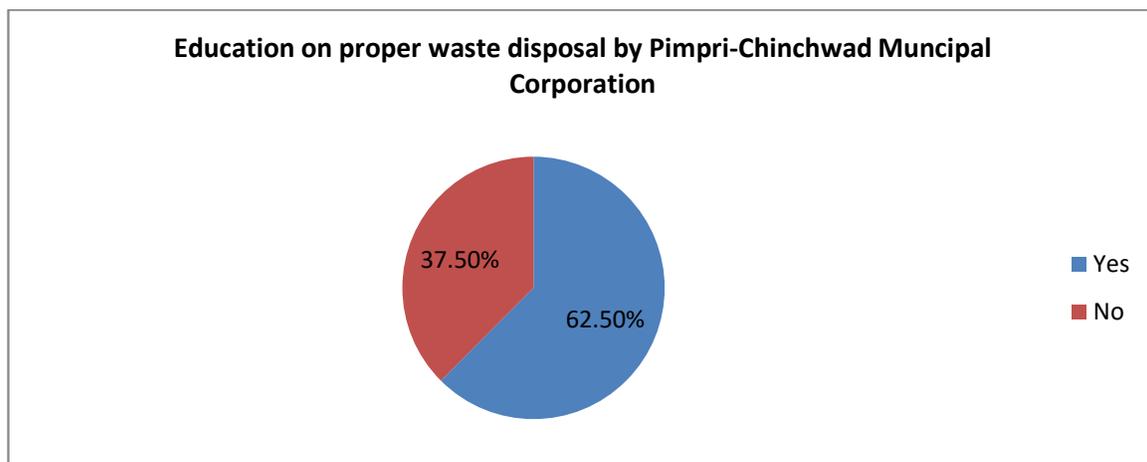
**Graph 3: Education level of the participants**  
57.50 % participants have completed graduation



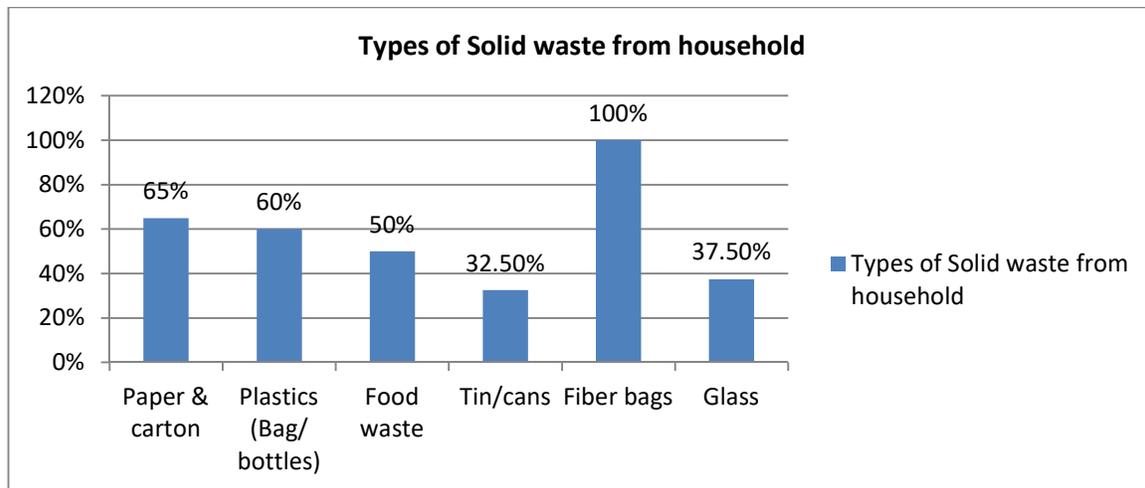
**Graph 4: Heard about solid waste management**  
We have found that 81.50 % participants heard about solid waste management



**Graph 5: Heard about solid waste management through the way**  
We have found that participants heard about solid waste management through radio (20 %), TV (70 %), public meeting (20 %), school (20 %), poster (17.50 %), and from other sources 2.50 %.

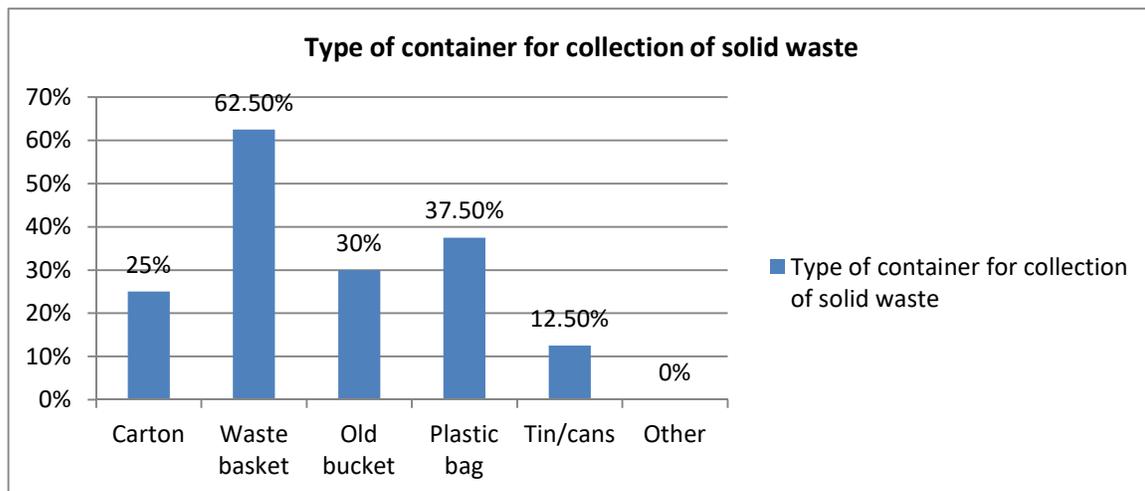


**Graph 6: Education on proper waste disposal by Pimpri-Chinchwad Municipal Corporation**  
62.50 % participants received education regarding solid waste management by corporation.

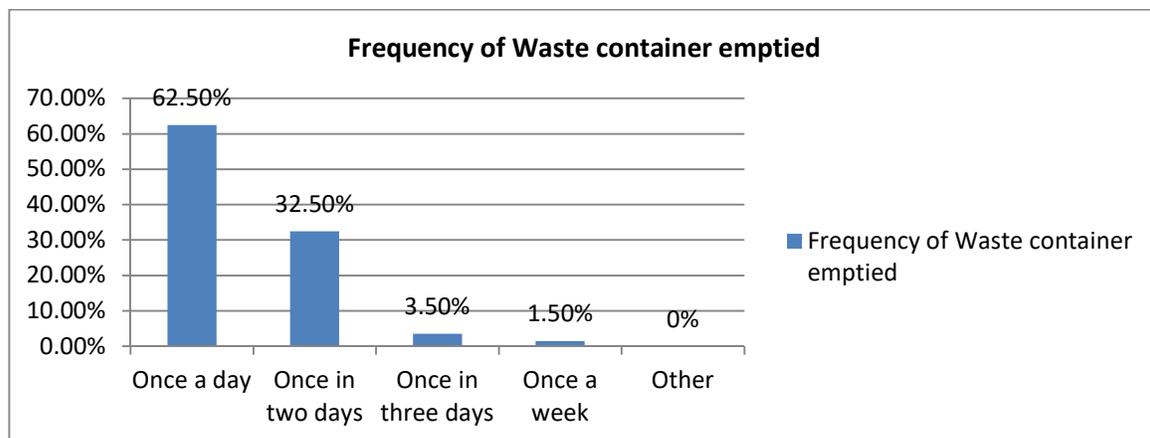


**Graph 7: Types of Solid waste from household**

We have found that maximum solid waste generated by paper and carton 65 %, plastic bags and bottles 60 %, fiber bags 100 %.



**Graph 8: Type of container for collection of solid waste**  
Solid waste mainly collected in waste basket (62.50 %).

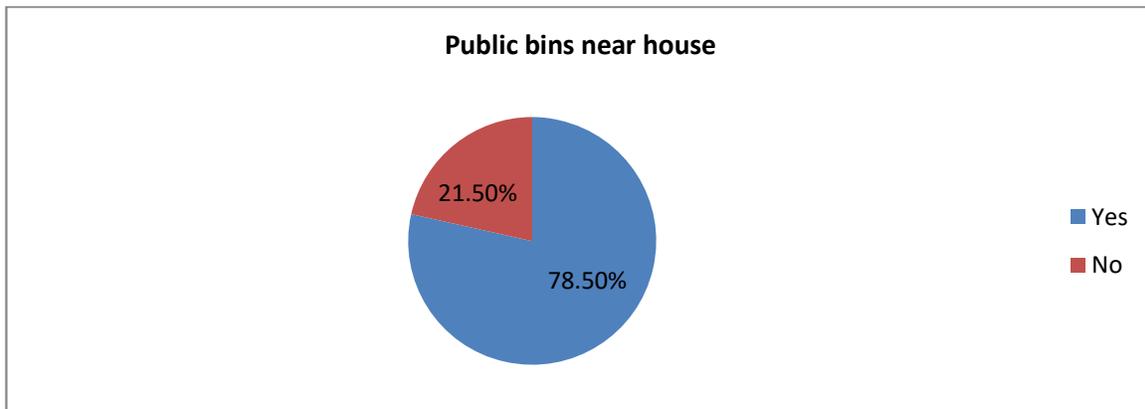


**Graph 9: Frequency of Waste container emptied**

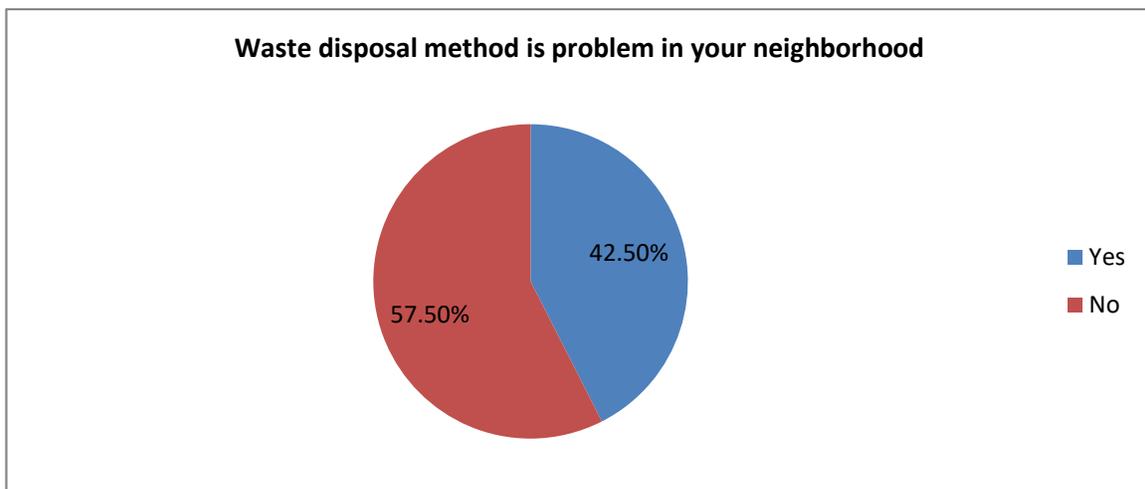
We have found that maximum participants emptied waste container daily 62.50 %.



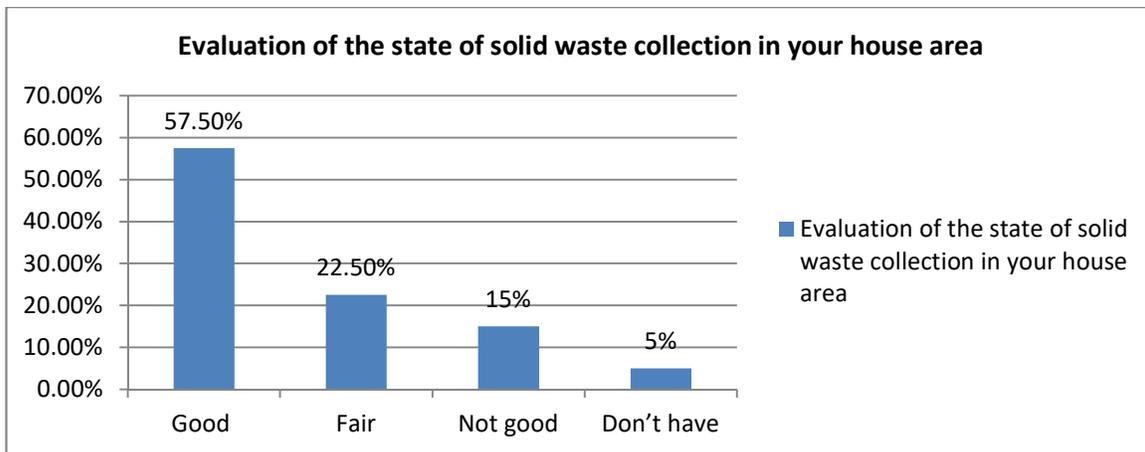
**Graph 10: Place to put away collected waste**  
 Maximum participants emptied waste container in public bins (52.50 %) and waste van (50 %)



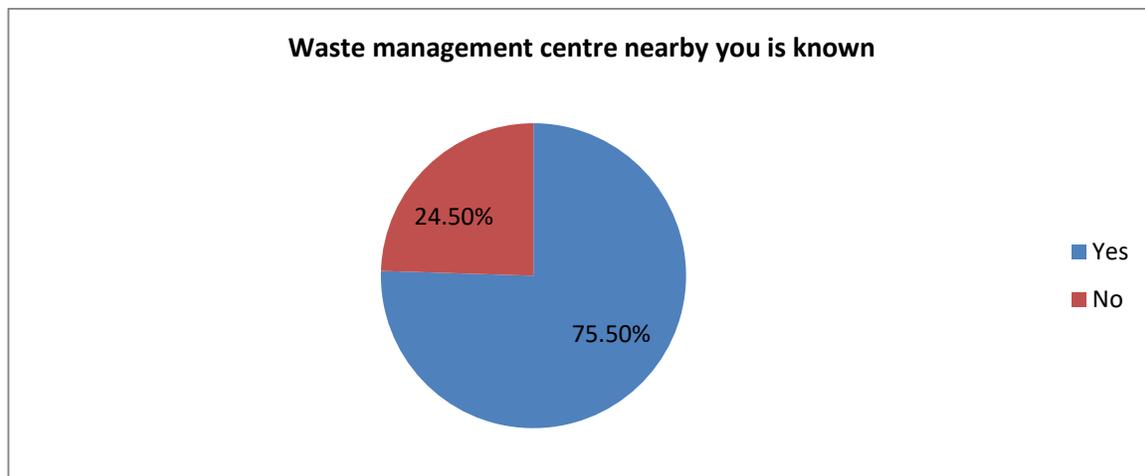
**Graph 11: Public bins near house**  
 78.50 % participants have public bin nearby their house



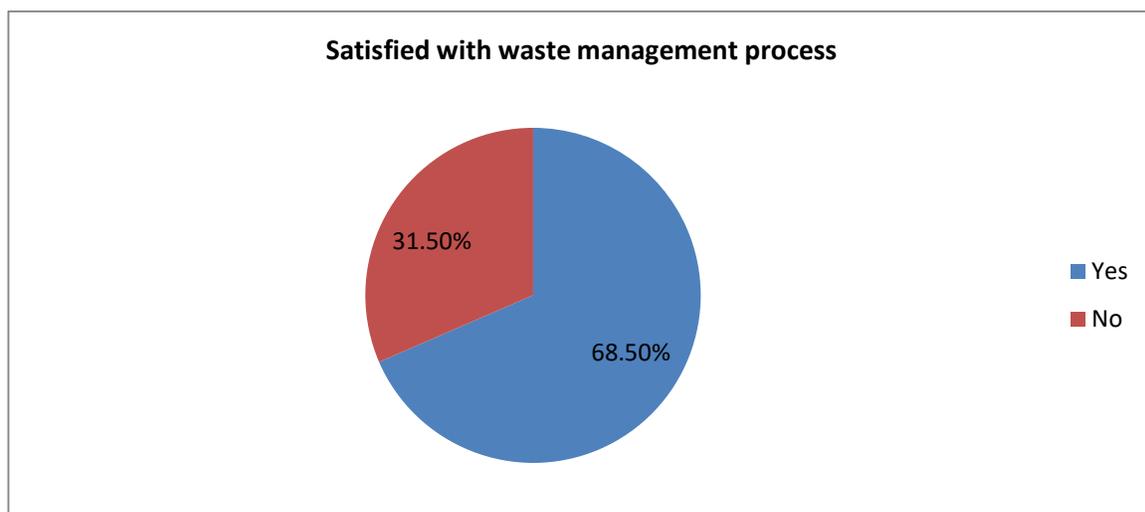
**Graph 12: Waste disposal method is problem in your neighbourhood**  
 57.50 % have no problem of waste disposal method in neighbourhood



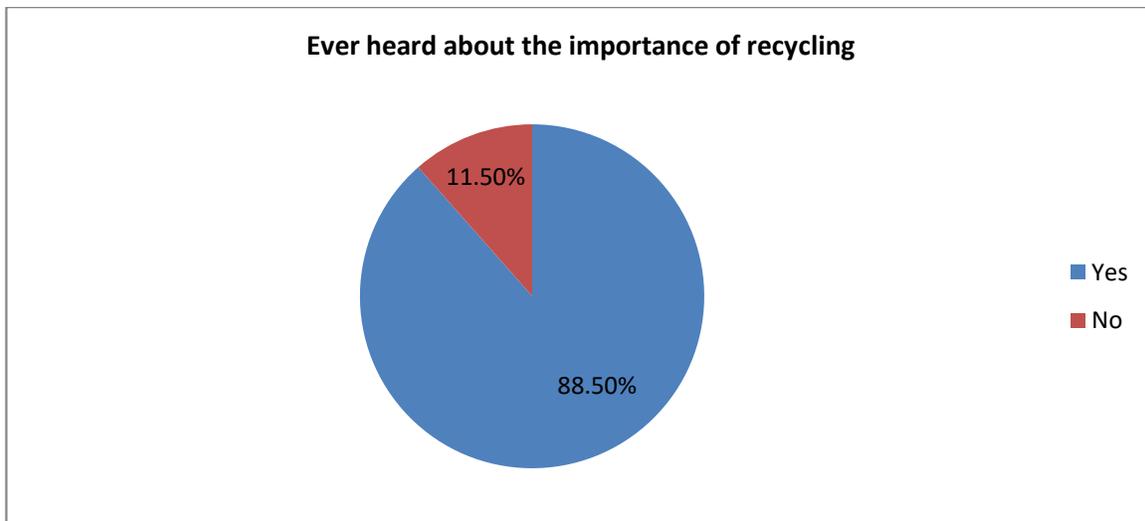
**Graph 13: Evaluation of the state of solid waste collection in your house area**  
 57.50 % participants gave good remark for solid waste disposal by corporation.



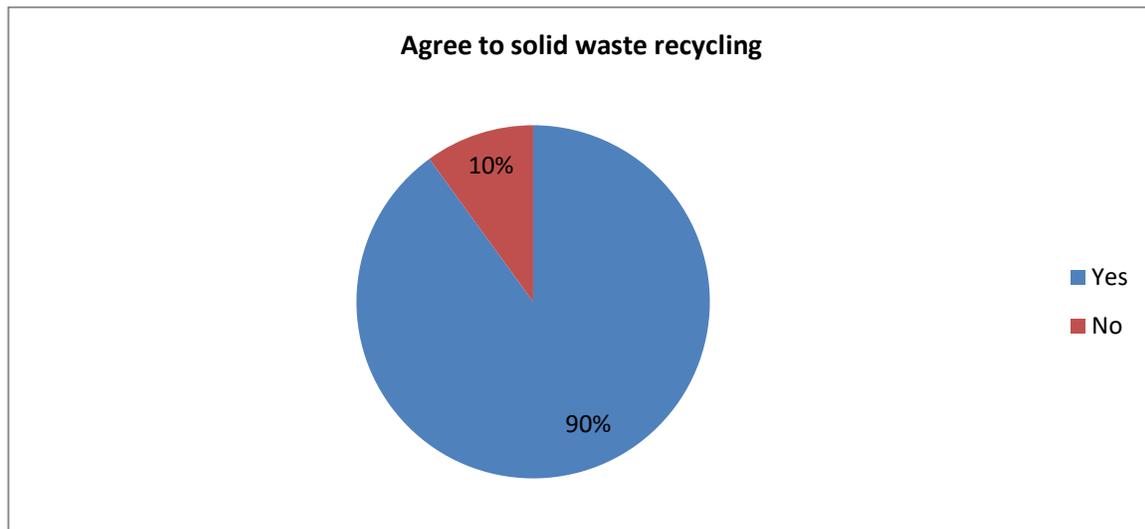
**Graph 14: Waste management centre nearby you is known**  
 75.50 % participants knew the waste management centre nearby them



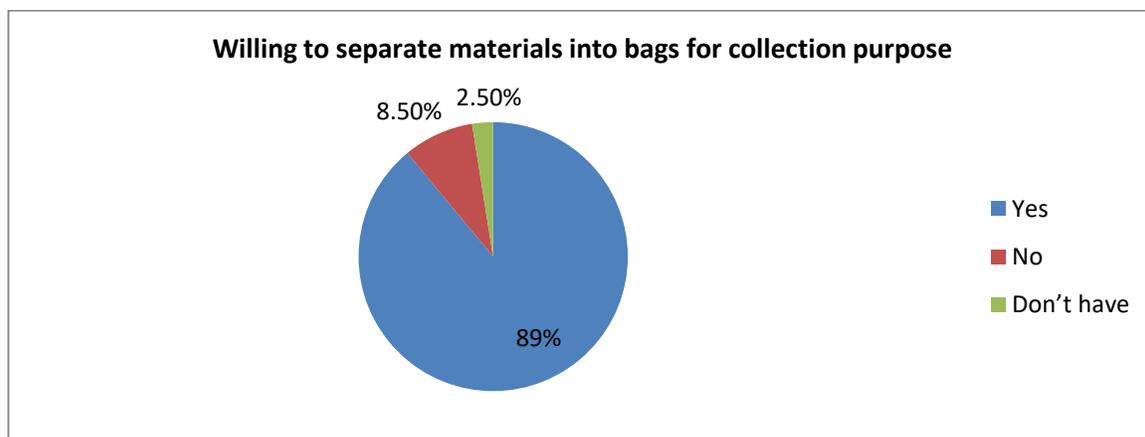
**Graph 15: Satisfied with waste management process**  
 68.50 % participants satisfied with waste management process



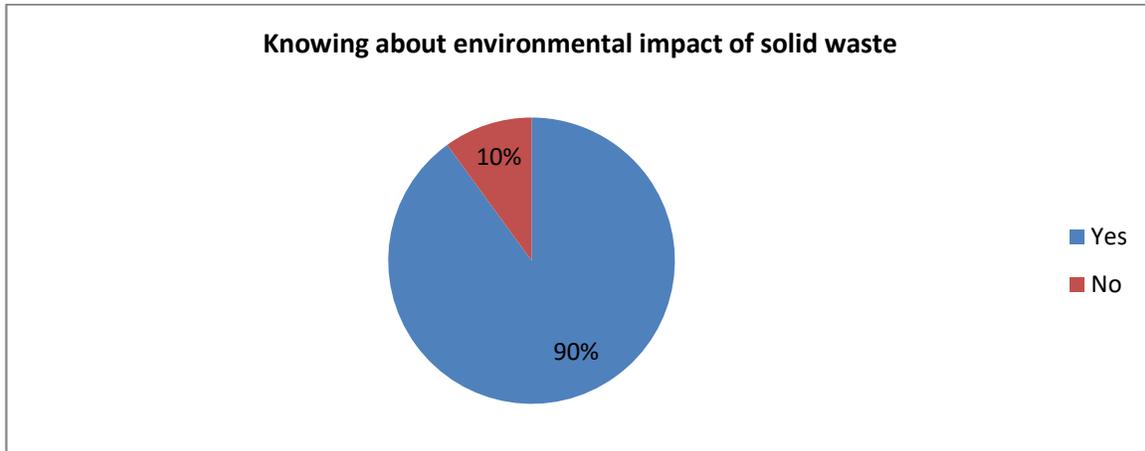
**Graph 16: Ever heard about the importance of recycling  
88.50 % participants heard about importance of recycling**



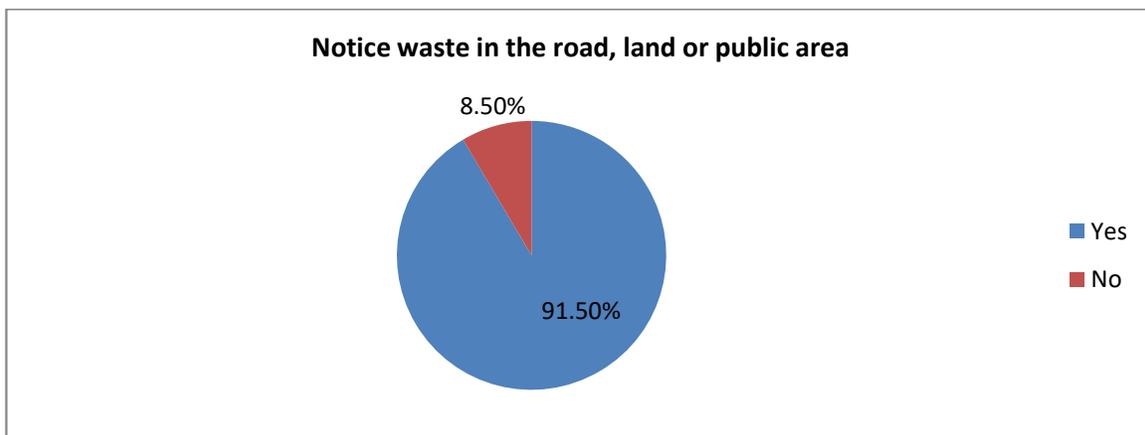
**Graph 17: Agree to solid waste recycling  
90 % participants agreed to recycle the waste**



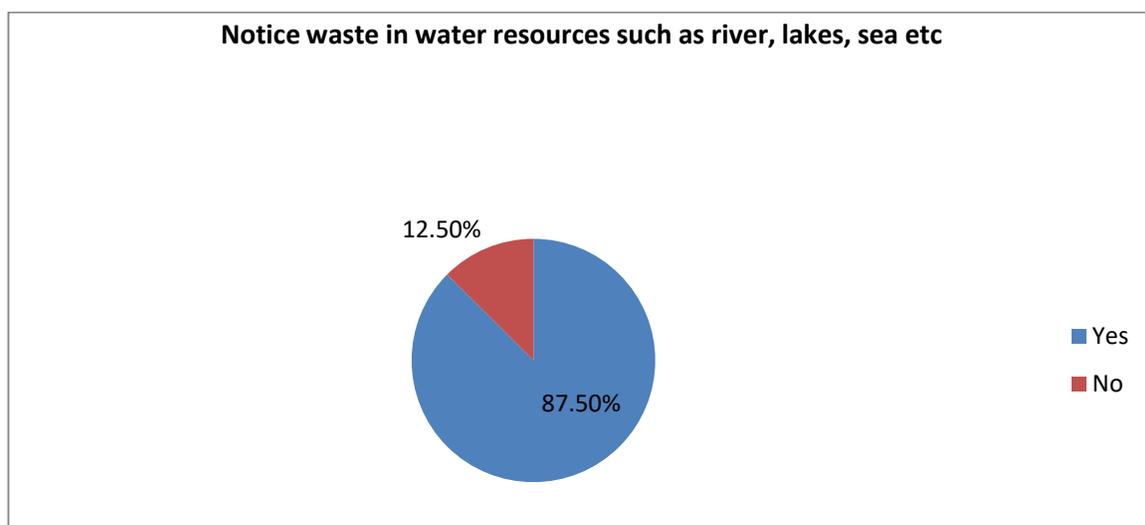
**89 % participants want to separate material into bags for collection purpose  
Graph 18: Willing to separate materials into bags for collection purpose**



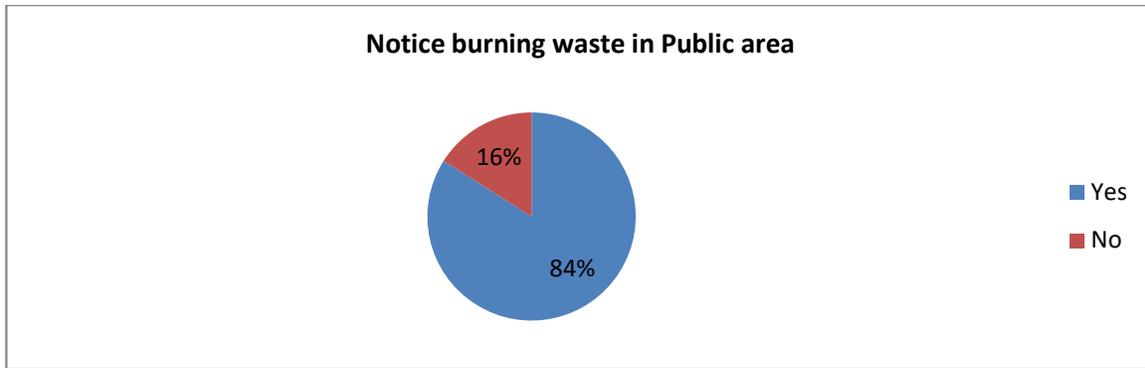
**Graph 19: Knowing about environmental impact of solid waste**  
90 % participants knew about environmental impact of solid waste



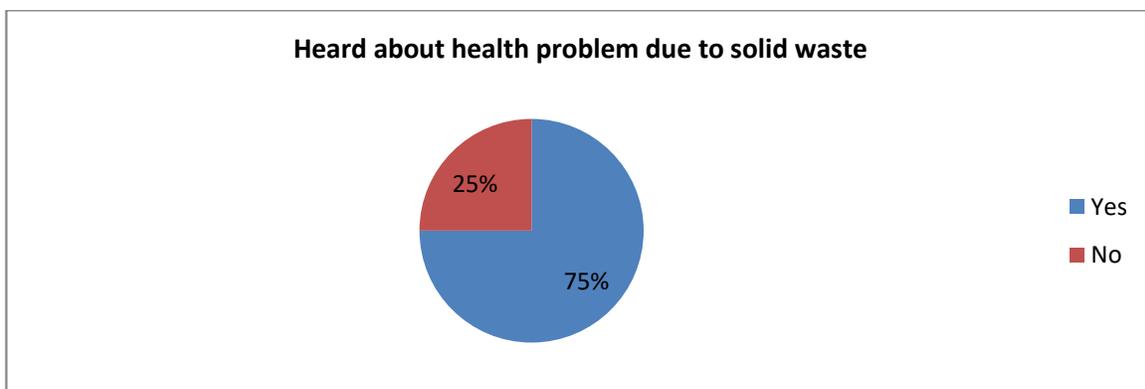
**Graph 20: Notice waste in the road, land or public area**  
Maximum participant noticed waste in the road, land and public area



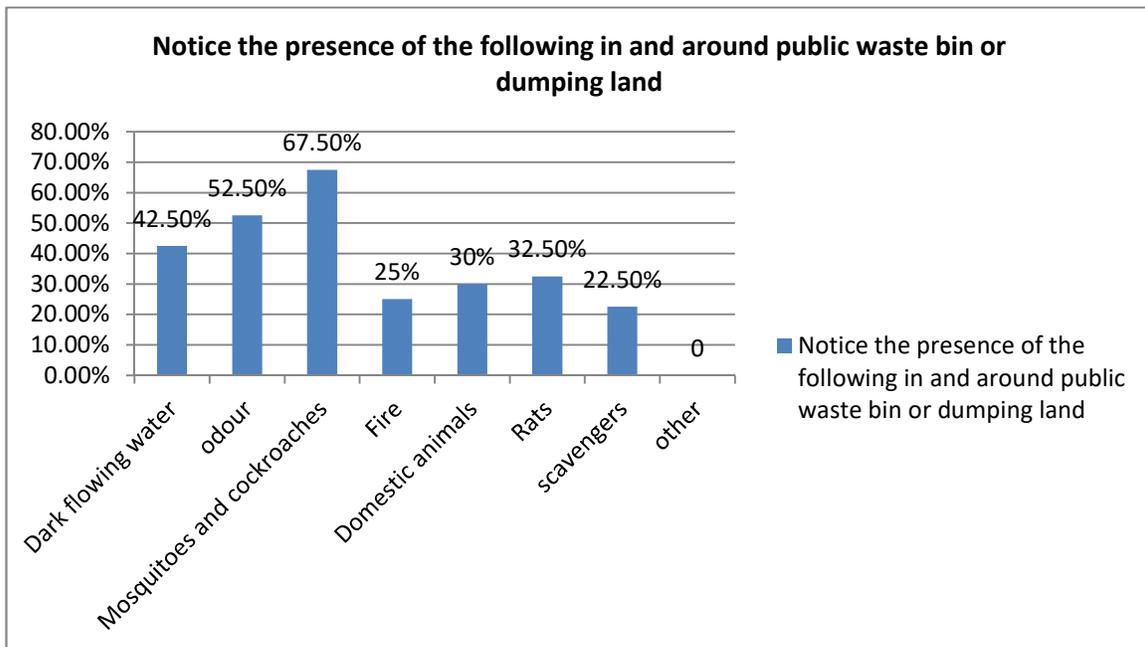
**Graph 21: Notice waste in water resources such as river, lakes, sea etc.**  
Maximum participants noticed waste in water resources such as river, lakes and sea etc.



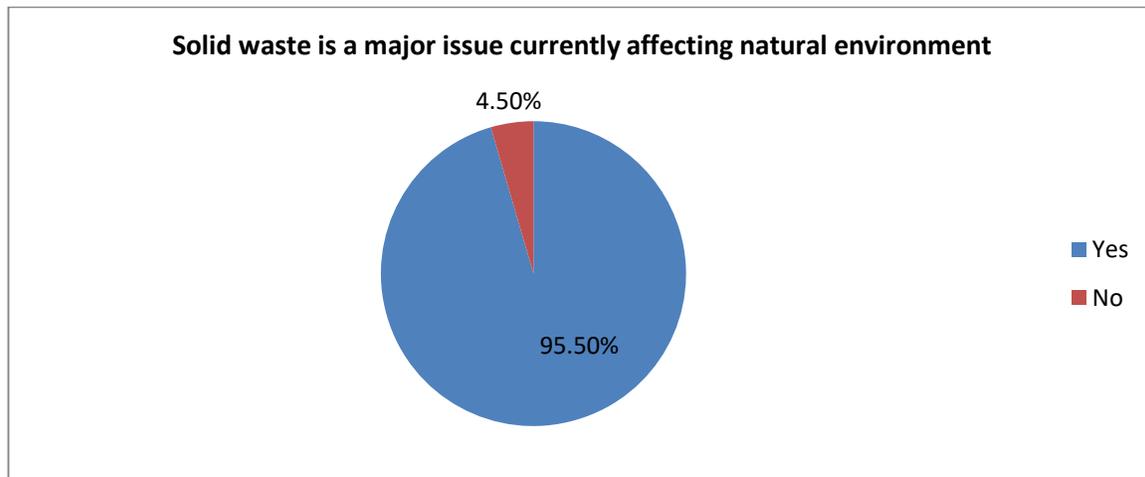
**Graph 22: Notice burning waste in Public area**  
Maximum participants noticed burning waste in public area.



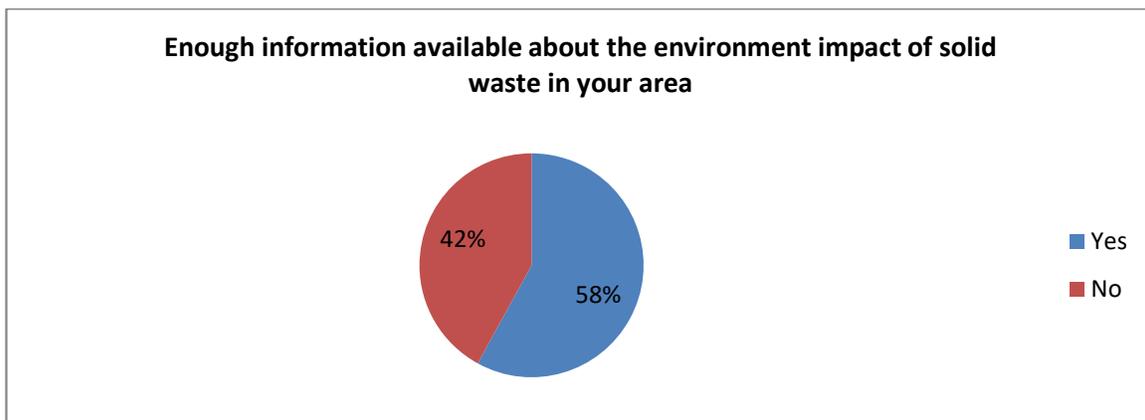
**Graph 23: Heard about health problem due to solid waste**  
Maximum participants heard about health problem due to solid waste



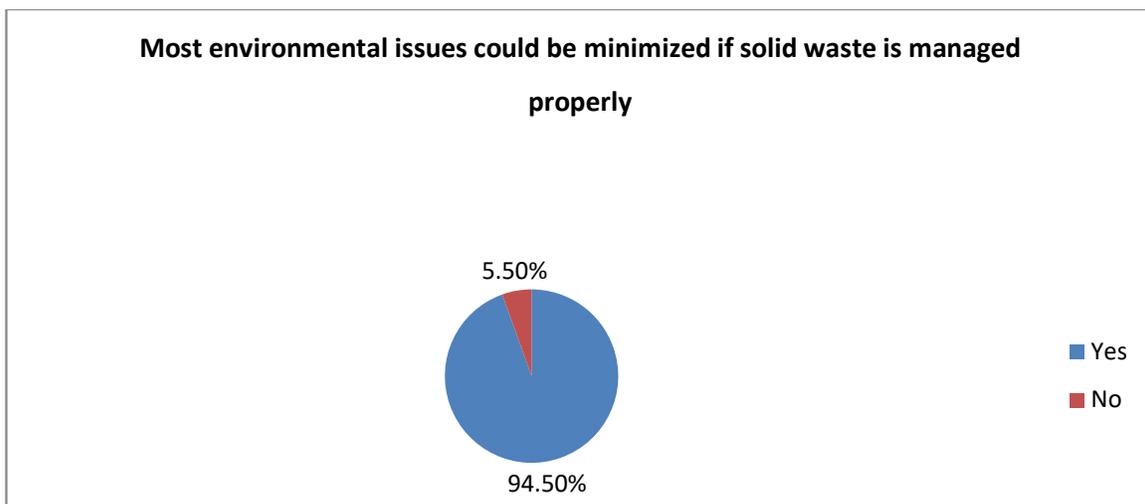
**Graph 24: Notice the presence of the following in and around public waste bin or dumping land** We found that maximum participants observed presence of Dark flowing water, odour, Mosquitoes and cockroaches, Fire, Domestic animals, Rats, scavengers around public waste bins



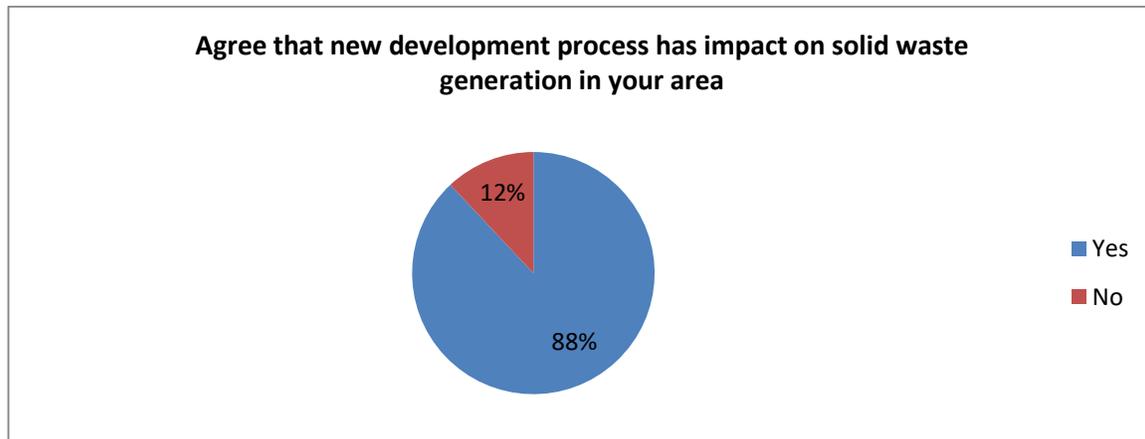
**Graph 25: Solid waste is a major issue currently affecting natural environment**  
 Maximum participants agreed that solid waste is a major issue affecting natural environment



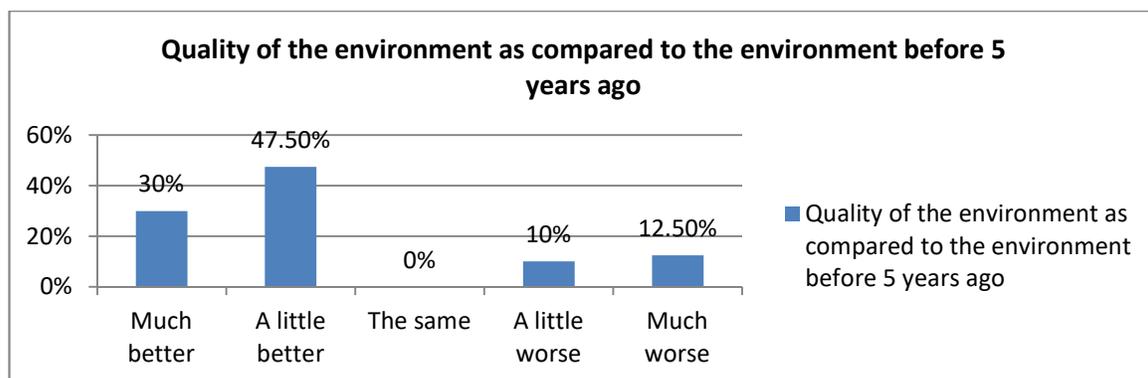
**Graph 26: Enough information available about the environment impact of solid waste in your area**  
 58 % participants agreed that enough information available about the environment impact of solid waste in their area



**Graph 27: Most environmental issues could be minimized if solid waste is managed properly**  
 Maximum participants agreed that most environmental issues could be minimized if solid waste is managed properly



**Graph 28: Agree that new development process has impact on solid waste generation in your area**  
 Maximum participants agreed that new development process has impact on solid waste generation in their area



**Graph 29: Quality of the environment as compared to the environment before 5 years ago**

**DISCUSSION**

A survey study was done at Pimpri-Chinchwad Municipal Corporation. Four variables were analyzed in this study. They were General information of the participants, knowledge, practice and attitude towards Domestic waste disposal.

In general information we have found that 57.50% participants have 2-4 members in their family, 40 % participants lived in this area from more than 10 years and 57.50 % participants have completed graduation.

Regarding knowledge of domestic waste we have found that 81.50 % participants heard about solid waste management through radio (20 %), TV (70 %), public meeting (20 %), school (20 %), poster (17.50 %), and from other sources 2.50 %. 62.50 % participants received education regarding solid waste management by corporation. Overall we observed that 76% people have knowledge regarding solid waste disposal.

Regarding practice of domestic waste disposal we have found that maximum solid

waste generated by paper and carton 65 %, plastic bags and bottles 60 %, fiber bags 100 %. Solid waste mainly collected in waste basket (62.50 %) and maximum participants emptied waste container daily 962.50 % mainly in public bins (52.50 %) and waste van (50 %). 78.550 % participants have public bin nearby their house and 57.50 % have no problem of waste disposal method in neighborhood. 75.50 % participants knew the waste management centre nearby them. 88.50 % participants heard about importance of recycling. Overall 60 % people adopted proper waste disposal method. Still 87 % people had noticed waste on road, Water sources etc.

Regarding attitude towards domestic waste disposal 57.50 % participants gave good remark for solid waste disposal by corporation. 68.50 % participants satisfied with waste management process. 90 % participants agreed to recycle the waste. 89 % participants want to separate material into bags for collection purpose. Overall it is observed that 90 % people have attitude to adopt new method of waste disposal.

It was observed that community have sufficient awareness regarding solid waste management. But due to negative attitude waste disposal is problem in this area. Strict laws may be helpful for proper waste

disposal. Community also encouraged recycling waste so that waste will minimize. All waste should be put in waste van to avoid spread of communicable diseases, air pollution, soil pollution and water pollution. Proper solid waste management programme should be designed by corporation.

## CONCLUSION

We had concluded that community has sufficient knowledge regarding domestic waste disposal but we have to change their attitude regarding negligence of proper practice disposal of waste. Many industries are located in Pimpri – Chinchwad Municipal corporation area, so that solid waste is burden on corporation. It is necessary to plan and implement solid waste management programme to prevent the diseases and to promote health.

## REFERENCES

- [1] [https://en.wikipedia.org/wiki/Swachh\\_Bharat\\_Mission](https://en.wikipedia.org/wiki/Swachh_Bharat_Mission)
- [2] K Park. Preventive and Social Medicine. Jabalpur: Banarsidas Bhanot; 2011, 697p
- [3] Sunil Kumar, Stephen R. Smith, Geoff Fowler, Costas Velis, S. Jyoti Kumar, Shashi Arya, Rena, Rakesh Kumar and Christopher Cheeseman. Challenges and opportunities associated with waste management in India. Royal Society

Open Science. Feb 2017 1-11

- [4] Rajkumar Joshi, Sirajuddin Ahmed.  
Status and challenges of municipal solid  
waste management in India: A review.  
Cogent Environmental sciences 2016.  
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